



**Data sheet** 

# IE-SOAR™ 2.4kW

A fuel cell power module that directly replaces a battery and gives much longer flight times.

**Enable previously impossible applications** – your business is no longer constrained by flight time. **Unlock BVLOS operations** – BVLOS makes sense with the range provided by fuel cells. **Increase operational efficiency** – spend more time in the air and achieve more.

### **Technical benefits**

Designed for safety and reliability. Single point failure tolerant and built in power system redundancy.

Modular – combine systems in parallel for 2.4kW, 4.8kW outputs.

Direct battery replacement – 12S to 16S compatible. Automatically follows load demand just like a battery. CE and FCC certified.

1000 hour commercial warranty.

### Fuel cells vs. batteries

- Increased flight time
- Fast refueling
- Built in power system redundancy

### Fuel cells vs. internal combustion engines

- Clean & zero-emission
- Near silent operation
- Reduced maintenance. No moving parts. No tuning.
- Vibration free for maximum stability





## IE-SOAR™ 2.4kW specifications

Maximum continuous power			2400W
Peak power			Up to 8000W
Output voltage (DCDC regulated)			Configurable between 50V and 70V
Fuel Cell Power Module (FCPM)	Dimensions		128 × 442 × 233mm
	Mass		4400g
Hydrogen Regulator	Mass		315g
	Maximum regulator (cylinder) pressure		350 bar/5000 psi
	Output pressure		0.9 bar.g ± 0.1 bar.g / 13 psig ± 1.5 psig
	Maximum cylinder mass		10kg
Default Hybrid batteries	Configuration		2 × 6S in series
(Configurable for higher or longer peak power)	Dimensions (per battery)		135 × 40 × 40mm
	Mass (per battery)		535g
	Capacity (per battery)		3300mAh
	Peak power		4800W
Environmental operating conditions	Startup temperature		5°C to 40°C
	Operating temperature		-5°C to 40°C
	Maximum altitude*		5000m
	Storage temperature		-10°C to 70°C
	System warranty		1000 hours
Safety features	Dual redundant power system and backup battery		
	Certification of IE-SOAR™ 2.4kW		CE and FCC
Other features	Internal data storage for firmware update, performance and diagnostics		SD card
	Communication protocol to UAV or accessories		UART / CAN
	Output electrical connector		Ring Terminal / AS150
Example Integration	UAV	Gryphon HX-1600	Gryphon XQ-1400 VS
	Flight time (no payload)	120 minutes	120 minutes
	Flight time (max. payload)	80 minutes (5.2kg payload)	60 minutes (4.5kg payload)

<sup>\*</sup> It may be possible to widen this range depending on customer power requirements.

For more information about our products visit our website: **www.intelligent-energy.com** 

To find out how you could benefit from longer flight times, arrange a meeting with a sales representative in your region by emailing: **sales@intelligent-energy.com** 



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